



SEQUENCE LISTING

<110> McLachlan, Karen
Glaser, Scott
Peach, Robert
Rowe, Anthony

<120> Compositions and Methods for Treating Cancer Using IGSF9 and
LIV-1

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<141> 2004-01-27

<150> US 60/442,535

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Arg Pro Pro Leu His Val Ile Glu Trp Leu Arg Phe Gly Phe Leu Leu
 50 55 60

Pro Ile Phe Ile Gln Phe Gly Leu Tyr Ser Pro Arg Ile Asp Pro Asp
 65 70 75 80

Tyr Val Gly Arg Val Arg Leu Gln Lys Gly Ala Ser Leu Gln Ile Glu
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Gly Leu Arg Val Glu Asp Gln Gly Trp Tyr Glu Cys Arg Val Phe Phe
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Arg Gly Ser Pro Leu Pro His Val Thr Trp Lys Leu Arg Gly Lys Asp				
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Leu Gly Gln Gly Gln Gly Gln Val Gln Val Gln Asn Gly Thr Leu Arg				
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Ile Arg Arg Val Glu Arg Gly Ser Ser Gly Val Tyr Thr Cys Gln Ala				
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Ser Ser Thr Glu Gly Ser Ala Thr His Ala Thr Gln Leu Leu Val Leu				
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Gly Pro Pro Val Ile Val Val Pro Pro Lys Asn Ser Thr Val Asn Ala				
225		230		235
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Ser Gln Asp Val Ser Leu Ala Cys His Ala Glu Ala Tyr Pro Ala Asn				
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Leu Thr Tyr Ser Trp Phe Gln Asp Asn Ile Asn Val Phe His Ile Ser				
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Arg Leu Gln Pro Arg Val Gln Ile Leu Val Asp Gly Ser Leu Arg Leu				
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Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr Cys Val Pro Ser				
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Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr Leu Thr Val Leu				
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Cys Met Pro Gly Val Ile Arg Cys Pro Val Arg Ala Asn Pro Pro Leu				
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Leu Phe Val Ser Trp Thr Lys Asp Gly Lys Ala Leu Gln Leu Asp Lys				
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Phe Pro Gly Trp Ser Gln Gly Thr Glu Gly Ser Leu Ile Ile Ala Leu				
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Leu Gly Thr Ala Gly Pro Ser Pro Val Thr Arg Val Leu Leu Lys Ala
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Gly Arg Glu Leu Leu Ile Pro Cys Ser Ala Gln Gly Asp Pro Pro Pro
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Val Asp Ser Asn Ser Ser Leu Ile Leu Arg Pro Leu Thr Lys Glu Ala
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His Gly His Trp Glu Cys Ser Ala Ser Asn Ala Val Ala Arg Val Ala
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Pro Leu Ala Lys Arg Pro Asp Arg Met His His Asp Trp Val Ser Leu
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Gly Pro Phe Ser Glu Ile Val Leu Ser Ala Pro Glu Gly Leu Pro Thr
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Thr Pro Ala Ala Pro Gly Leu Pro Pro Thr Glu Ile Pro Pro Pro Leu
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Ser Pro Pro Arg Gly Leu Val Ala Val Arg Thr Pro Arg Gly Val Leu
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Leu His Trp Asp Pro Pro Glu Leu Val Pro Lys Arg Leu Asp Gly Tyr
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Val Leu Glu Gly Arg Gln Gly Ser Gln Gly Trp Glu Val Leu Asp Pro
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Ala Val Ala Gly Thr Glu Thr Glu Leu Leu Val Pro Gly Leu Ile Lys
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Asp Val Leu Tyr Glu Phe Arg Leu Val Ala Phe Ala Gly Ser Phe Val
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Pro Ile Phe Ile Gln Phe Gly Leu Tyr Ser Pro Arg Ile Asp Pro Asp
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Tyr Val Gly Arg Val Arg Leu Gln Lys Gly Ala Ser Leu Gln Ile Glu
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Gly Leu Arg Val Glu Asp Gln Gly Trp Tyr Glu Cys Arg Val Phe Phe
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Leu Asp Gln His Ile Pro Glu Asp Asp Phe Ala Asn Gly Ser Trp Val
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His Leu Thr Val Asn Ser Pro Pro Gln Phe Gln Glu Thr Pro Pro Ala
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His Thr Gln Tyr Gln Phe Ser Val Leu Ala Gln Asn Lys Leu Gly Ser
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Gly Pro Phe Ser Glu Ile Val Leu Ser Ala Pro Glu Gly Leu Pro Thr
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 Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
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 Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
 885 890 895
 Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
 900 905 910
 Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 915 920 925
 Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln

930

935

940

Lys Ser Leu Ser Leu Ser Pro Gly Lys
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<212> PRT
<213> Homo sapiens

<400> 6

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Met Val Trp Cys Leu Gly Leu Ala Val Leu Ser Leu Val Ile Ser Gln
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Gly Ala Asp Gly Arg Gly Lys Pro Glu Val Val Ser Val Val Gly Arg
 20 25 30

Ala Glu Glu Ser Val Val Leu Gly Cys Asp Leu Leu Pro Pro Ala Gly
 35 40 45

Arg Pro Pro Leu His Val Ile Glu Trp Leu Arg Phe Gly Phe Leu Leu
 50 55 60

Pro Ile Phe Ile Gln Phe Gly Leu Tyr Ser Pro Arg Ile Asp Pro Asp
 65 70 75 80

Tyr Val Gly Arg Val Arg Leu Gln Lys Gly Ala Ser Leu Gln Ile Glu
 85 90 95

Gly Leu Arg Val Glu Asp Gln Gly Trp Tyr Glu Cys Arg Val Phe Phe
 100 105 110

Leu Asp Gln His Ile Pro Glu Asp Asp Phe Ala Asn Gly Ser Trp Val
 115 120 125

His Leu Thr Val Asn Ser Pro Pro Gln Phe Gln Glu Thr Pro Pro Ala
 130 135 140

Val Leu Glu Val Gln Glu Leu Glu Pro Val Thr Leu Arg Cys Val Ala
 145 150 155 160

Arg Gly Ser Pro Leu Pro His Val Thr Trp Lys Leu Arg Gly Lys Asp
 165 170 175

Leu Gly Gln Gly Gln Gly Gln Val Gln Val Gln Asn Gly Thr Leu Arg
 180 185 190

Ile Arg Arg Val Glu Arg Gly Ser Ser Gly Val Tyr Thr Cys Gln Ala
 195 200 205

Ser Ser Thr Glu Gly Ser Ala Thr His Ala Thr Gln Leu Leu Val Leu
 210 215 220

Gly Pro Pro Val Ile Val Val Pro Pro Lys Asn Ser Thr Val Asn Ala
 225 230 235 240

Ser Gln Asp Val Ser Leu Ala Cys His Ala Glu Ala Tyr Pro Ala Asn
 245 250 255

Leu Thr Tyr Ser Trp Phe Gln Asp Asn Ile Asn Val Phe His Ile Ser
260 265 270

Arg Leu Gln Pro Arg Val Gln Ile Leu Val Asp Gly Ser Leu Arg Leu
275 280 285

Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr Cys Val Pro Ser
290 295 300

Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr Leu Thr Val Leu
305 310 315 320

Tyr Pro Ala Gln Val Thr Ala Met Pro Pro Glu Thr Pro Leu Pro Ile
325 330 335

Gly Met Pro Gly Val Ile Arg Cys Pro Val Arg Ala Asn Pro Pro Leu
340 345 350

Leu Phe Val Ser Trp Thr Lys Asp Gly Lys Ala Leu Gln Leu Asp Lys
355 360 365

Phe Pro Gly Trp Ser Gln Gly Thr Glu Gly Ser Leu Ile Ile Ala Leu
370 375 380

Gly Asn Glu Asp Ala Leu Gly Glu Tyr Ser Cys Thr Pro Tyr Asn Ser
385 390 395 400

Leu Gly Thr Ala Gly Pro Ser Pro Val Thr Arg Val Leu Leu Lys Ala
405 410 415

Pro Pro Ala Phe Ile Glu Arg Pro Lys Glu Glu Tyr Phe Gln Glu Val
420 425 430

Gly Arg Glu Leu Leu Ile Pro Cys Ser Ala Gln Gly Asp Pro Pro Pro
435 440 445

Val Val Ser Trp Thr Lys Val Gly Arg Gly Leu Gln Gly Gln Ala Gln
450 455 460

Val Asp Ser Asn Ser Ser Leu Ile Leu Arg Pro Leu Thr Lys Glu Ala
465 470 475 480

His Gly His Trp Glu Cys Ser Ala Ser Asn Ala Val Ala Arg Val Ala
485 490 495

Thr Ser Thr Asn Val Tyr Val Leu Gly Thr Ser Pro His Val Val Thr

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Pro Gly Phe Asp Gly Gly Tyr Leu Gln Arg Phe Ser Val Trp Tyr Thr 530 535 540		
Pro Leu Ala Lys Arg Pro Asp Arg Met His His Asp Trp Val Ser Leu 545 550 555 560		
Ala Val Pro Val Gly Ala Ala His Leu Leu Val Pro Gly Leu Gln Pro 565 570 575		
His Thr Gln Tyr Gln Phe Ser Val Leu Ala Gln Asn Lys Leu Gly Ser 580 585 590		
Gly Pro Phe Ser Glu Ile Val Leu Ser Ala Pro Glu Gly Leu Pro Thr 595 600 605		
Thr Pro Ala Ala Pro Gly Leu Pro Pro Thr Glu Ile Pro Pro Pro Leu 610 615 620		
Ser Pro Pro Arg Gly Leu Val Ala Val Arg Thr Pro Arg Gly Val Leu 625 630 635 640		
Leu His Trp Asp Pro Pro Glu Leu Val Pro Lys Arg Leu Asp Gly Tyr 645 650 655		
Val Leu Glu Gly Arg Gln Gly Ser Gln Gly Trp Glu Val Leu Asp Pro 660 665 670		
Ala Val Ala Gly Thr Glu Thr Glu Leu Leu Val Pro Gly Leu Ile Lys 675 680 685		
Asp Val Leu Tyr Glu Phe Arg Leu Val Ala Phe Ala Gly Ser Phe Val 690 695 700		
Ser Asp Pro Ser Asn Thr Ala Asn Val Ser Thr Ser Gly Leu Glu Val 705 710 715 720		
Tyr Pro Ser Arg Thr Gln Leu Pro Gly Leu Leu Pro Gln Pro Ser Ser 725 730 735		
Gln Glu Pro Lys Ser Ser Asp Lys Thr His Thr Ser Pro Pro Ser Pro 740 745 750		

Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
 755 760 765

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
 770 775 780

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
 785 790 795 800

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
 805 810 815

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
 820 825 830

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
 835 840 845

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
 850 855 860

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
 865 870 875 880

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
 885 890 895

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
 900 905 910

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
 915 920 925

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 930 935 940

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
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Lys Ser Leu Ser Leu Ser Pro Gly Lys
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<210> 8
 <211> 1179
 <212> PRT
 <213> Homo sapiens

<400> 8

Met Val Trp Cys Leu Gly Leu Ala Val Leu Ser Leu Val Ile Ser Gln
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Ala Gly Glu Ser Val Val Leu Gly Cys Asp Leu Leu Pro Pro Ala Gly
 35 40 45

Arg Pro Pro Leu His Val Ile Glu Trp Leu Arg Phe Gly Phe Leu Leu
 50 55 60

Pro Ile Phe Ile Gln Phe Gly Leu Tyr Ser Pro Arg Ile Asp Pro Asp
 65 70 75 80

Tyr Val Gly Arg Val Arg Leu Gln Lys Gly Ala Ser Leu Gln Ile Glu
 85 90 95

Gly Leu Arg Val Glu Asp Gln Gly Trp Tyr Glu Cys Arg Val Phe Phe
 100 105 110

Leu Asp Gln His Ile Pro Glu Asp Asp Phe Ala Asn Gly Ser Trp Val
 115 120 125

His Leu Thr Val Asn Ser Pro Pro Gln Phe Gln Glu Thr Pro Pro Ala
 130 135 140

Val Leu Glu Val Gln Glu Leu Glu Pro Val Thr Leu Arg Cys Val Ala
 145 150 155 160

Arg Gly Ser Pro Leu Pro His Val Thr Trp Lys Leu Arg Gly Lys Asp
 165 170 175

Leu Gly Gln Gly Gln Gly Gln Val Gln Val Gln Asn Gly Thr Leu Arg
 180 185 190

Ile Arg Arg Val Glu Arg Gly Ser Ser Gly Val Tyr Thr Cys Gln Ala
 195 200 205

Ser Ser Thr Glu Gly Ser Ala Thr His Ala Thr Gln Leu Leu Val Leu
 210 215 220

Gly Pro Pro Val Ile Val Val Pro Pro Lys Asn Ser Thr Val Asn Ala
 225 230 235 240

Ser Gln Asp Val Ser Leu Ala Cys His Ala Glu Ala Tyr Pro Ala Asn
 245 250 255

Leu Thr Tyr Ser Trp Phe Gln Asp Asn Ile Asn Val Phe His Ile Ser
 260 265 270

Arg Leu Gln Pro Arg Val Arg Ile Leu Val Asp Gly Ser Leu Arg Leu
 275 280 285

Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr Cys Val Pro Ser
 290 295 300

Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr Leu Thr Val Leu
 305 310 315 320

Tyr Pro Ala Gln Val Thr Ala Met Pro Pro Glu Thr Pro Leu Pro Ile
 325 330 335

Gly Met Pro Gly Val Ile Arg Cys Pro Val Arg Ala Asn Pro Pro Leu
 340 345 350

Leu Phe Val Ser Trp Thr Lys Asp Gly Lys Ala Leu Gln Leu Asp Lys
 355 360 365

Phe Pro Gly Trp Ser Gln Gly Thr Glu Gly Ser Leu Ile Ile Ala Leu
 370 375 380

Gly Asn Glu Asp Ala Leu Gly Glu Tyr Ser Cys Thr Pro Tyr Asn Ser
 385 390 395 400

Leu Gly Thr Ala Gly Pro Ser Pro Val Thr Arg Val Leu Leu Lys Ala
 405 410 415

Pro Pro Ala Phe Ile Glu Arg Pro Lys Glu Glu Tyr Phe Gln Glu Val
 420 425 430

Gly Arg Glu Leu Leu Ile Pro Cys Ser Ala Gln Gly Asp Pro Pro Pro
 435 440 445

Val Val Ser Trp Thr Lys Val Gly Arg Gly Leu Gln Gly Gln Ala Gln
 450 455 460

Val	Asp	Ser	Asn	Ser	Ser	Leu	Ile	Leu	Arg	Pro	Leu	Thr	Lys	Glu	Ala	465	470	475	480
His	Gly	His	Trp	Glu	Cys	Ser	Ala	Ser	Asn	Ala	Val	Ala	Arg	Val	Ala	485	490	495	
Thr	Ser	Thr	Asn	Val	Tyr	Val	Leu	Gly	Thr	Ser	Pro	His	Val	Val	Thr	500	505	510	
Asn	Val	Ser	Val	Val	Ala	Leu	Pro	Lys	Gly	Ala	Asn	Val	Ser	Trp	Glu	515	520	525	
Pro	Gly	Phe	Asp	Gly	Gly	Tyr	Leu	Gln	Arg	Phe	Ser	Val	Trp	Tyr	Thr	530	535	540	
Pro	Leu	Ala	Lys	Arg	Pro	Asp	Arg	Met	His	His	Asp	Trp	Val	Ser	Leu	545	550	555	560
Ala	Val	Pro	Val	Gly	Ala	Ala	His	Leu	Leu	Val	Pro	Gly	Leu	Gln	Pro	565	570	575	
His	Thr	Gln	Tyr	Gln	Phe	Ser	Val	Leu	Ala	Gln	Asn	Lys	Leu	Gly	Ser	580	585	590	
Gly	Pro	Phe	Ser	Glu	Ile	Val	Leu	Ser	Ala	Pro	Glu	Gly	Leu	Pro	Thr	595	600	605	
Thr	Pro	Ala	Ala	Pro	Gly	Leu	Pro	Pro	Thr	Glu	Ile	Pro	Pro	Pro	Leu	610	615	620	
Ser	Pro	Pro	Arg	Gly	Leu	Val	Ala	Val	Arg	Thr	Pro	Arg	Gly	Val	Leu	625	630	635	640
Leu	His	Trp	Asp	Pro	Pro	Glu	Leu	Val	Pro	Lys	Arg	Leu	Asp	Gly	Tyr	645	650	655	
Val	Leu	Glu	Gly	Arg	Gln	Gly	Ser	Gln	Gly	Trp	Glu	Val	Leu	Asp	Pro	660	665	670	
Ala	Val	Ala	Gly	Thr	Glu	Thr	Glu	Leu	Leu	Val	Pro	Gly	Leu	Ile	Lys	675	680	685	
Asp	Val	Leu	Tyr	Glu	Phe	Arg	Leu	Val	Ala	Phe	Ala	Gly	Ser	Phe	Val	690	695	700	

Ser Asp Pro Ser Asn Thr Ala Asn Val Ser Thr Ser Gly Leu Glu Val
705 710 715 720

Tyr Pro Ser Arg Thr Gln Leu Pro Gly Leu Leu Pro Gln Pro Val Leu
725 730 735

Ala Gly Val Val Gly Gly Val Cys Phe Leu Gly Val Ala Val Leu Val
740 745 750

Ser Ile Leu Ala Gly Cys Leu Leu Asn Arg Arg Arg Ala Ala Arg Arg
755 760 765

Arg Arg Lys Arg Leu Arg Gln Asp Pro Pro Leu Ile Phe Ser Pro Thr
770 775 780

Gly Lys Ser Ala Ala Pro Ser Ala Leu Gly Ser Gly Ser Pro Asp Ser
785 790 795 800

Val Ala Lys Leu Lys Leu Gln Gly Ser Pro Val Pro Ser Leu Arg Gln
805 810 815

Ser Leu Leu Trp Gly Asp Pro Ala Gly Thr Pro Ser Pro His Pro Asp
820 825 830

Pro Pro Ser Ser Arg Gly Pro Leu Pro Leu Glu Pro Ile Cys Arg Gly
835 840 845

Pro Asp Gly Arg Phe Val Met Gly Pro Thr Val Ala Ala Pro Gln Glu
850 855 860

Arg Ser Gly Arg Glu Gln Ala Glu Pro Arg Thr Pro Ala Gln Arg Leu
865 870 875 880

Ala Arg Ser Phe Asp Cys Ser Ser Ser Ser Pro Ser Gly Ala Pro Gln
885 890 895

Pro Leu Cys Ile Glu Asp Ile Ser Pro Val Ala Pro Pro Pro Ala Ala
900 905 910

Pro Pro Ser Pro Leu Pro Gly Pro Gly Pro Leu Leu Gln Tyr Leu Ser
915 920 925

Leu Pro Phe Phe Arg Glu Met Asn Val Asp Gly Asp Trp Pro Pro Leu
930 935 940

Glu Glu Pro Ser Pro Ala Ala Pro Pro Asp Tyr Met Asp Thr Arg Arg

<210> 9
 <211> 1179
 <212> PRT
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<400> 9

Met Val Trp Cys Leu Gly Leu Ala Val Leu Ser Leu Val Ile Ser Gln
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Gly Ala Asp Gly Arg Gly Lys Pro Glu Val Val Ser Val Val Gly Arg
 20 25 30

Ala Gly Glu Ser Val Val Leu Gly Cys Asp Leu Leu Pro Pro Ala Gly
 35 40 45

Arg Pro Pro Leu His Val Ile Glu Trp Leu Arg Phe Gly Phe Leu Leu
 50 55 60

Pro Ile Phe Ile Gln Phe Gly Leu Tyr Ser Pro Arg Ile Asp Pro Asp
 65 70 75 80

Tyr Val Gly Arg Val Arg Leu Gln Lys Gly Ala Ser Leu Gln Ile Glu
 85 90 95

Gly Leu Arg Val Glu Asp Gln Gly Trp Tyr Glu Cys Arg Val Phe Phe
 100 105 110

Leu Asp Gln His Ile Pro Glu Asp Asp Phe Ala Asn Gly Ser Trp Val
 115 120 125

His Leu Thr Val Asn Ser Pro Pro Gln Phe Gln Glu Thr Pro Pro Ala
 130 135 140

Val Leu Glu Val Gln Glu Leu Glu Pro Val Thr Leu Arg Cys Val Ala
 145 150 155 160

Arg Gly Ser Pro Leu Pro His Val Thr Trp Lys Leu Arg Gly Lys Asp
 165 170 175

Leu Gly Gln Gly Gln Gly Gln Val Gln Val Gln Asn Gly Thr Leu Arg
 180 185 190

Ile Arg Arg Val Glu Arg Gly Ser Ser Gly Val Tyr Thr Cys Gln Ala
 195 200 205

Ser Ser Thr Glu Gly Ser Ala Thr His Ala Thr Gln Leu Leu Val Leu
 210 215 220

 Gly Pro Pro Val Ile Val Val Pro Pro Lys Asn Ser Thr Val Asn Ala
 225 230 235 240

 Ser Gln Asp Val Ser Leu Ala Cys His Ala Glu Ala Tyr Pro Ala Asn
 245 250 255

 Leu Thr Tyr Ser Trp Phe Gln Asp Asn Ile Asn Val Phe His Ile Ser
 260 265 270

 Arg Leu Gln Pro Arg Val Arg Ile Leu Val Asp Gly Ser Leu Arg Leu
 275 280 285

 Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr Cys Val Pro Ser
 290 295 300

 Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr Leu Thr Val Leu
 305 310 315 320

 Tyr Pro Ala Gln Val Thr Ala Met Pro Pro Glu Thr Pro Leu Pro Ile
 325 330 335

 Gly Met Pro Gly Val Ile Arg Cys Pro Val Arg Ala Asn Pro Pro Leu
 340 345 350

 Leu Phe Val Ser Trp Thr Lys Asp Gly Lys Ala Leu Gln Leu Asp Lys
 355 360 365

 Phe Pro Gly Trp Ser Gln Gly Thr Glu Gly Ser Leu Ile Ile Ala Leu
 370 375 380

 Gly Asn Glu Asp Ala Leu Gly Glu Tyr Ser Cys Thr Pro Tyr Asn Ser
 385 390 395 400

 Leu Gly Thr Ala Gly Pro Ser Pro Val Thr Arg Val Leu Leu Lys Ala
 405 410 415

 Pro Pro Ala Phe Ile Glu Arg Pro Lys Glu Glu Tyr Phe Gln Glu Val
 420 425 430

 Gly Arg Glu Leu Leu Ile Pro Cys Ser Ala Gln Gly Asp Pro Pro Pro
 435 440 445

 Val Val Ser Trp Thr Lys Val Gly Arg Gly Leu Gln Gly Gln Ala Gln

450	455	460															
Val	Asp	Ser	Asn	Ser	Ser	Leu	Ile	Leu	Arg	Pro	Leu	Thr	Lys	Glu	Ala		
465					470					475					480		
His	Gly	His	Trp	Glu	Cys	Ser	Ala	Ser	Asn	Ala	Val	Ala	Arg	Val	Ala		
				485					490					495			
Thr	Ser	Thr	Asn	Val	Tyr	Val	Leu	Gly	Thr	Ser	Pro	His	Val	Val	Thr		
			500					505					510				
Asn	Val	Ser	Val	Val	Ala	Leu	Pro	Lys	Gly	Ala	Asn	Val	Ser	Trp	Glu		
		515					520					525					
Pro	Gly	Phe	Asp	Gly	Gly	Tyr	Leu	Gln	Arg	Phe	Ser	Val	Trp	Tyr	Thr		
	530					535					540						
Pro	Leu	Ala	Lys	Arg	Pro	Asp	Arg	Met	His	His	Asp	Trp	Val	Ser	Leu		
545					550					555					560		
Ala	Val	Pro	Val	Gly	Ala	Ala	His	Leu	Leu	Val	Pro	Gly	Leu	Gln	Pro		
				565					570					575			
His	Thr	Gln	Tyr	Gln	Phe	Ser	Val	Leu	Ala	Gln	Asn	Lys	Leu	Gly	Ser		
			580					585					590				
Gly	Pro	Phe	Ser	Glu	Ile	Val	Leu	Ser	Ala	Pro	Glu	Gly	Leu	Pro	Thr		
		595					600					605					
Thr	Pro	Ala	Ala	Pro	Gly	Leu	Pro	Pro	Thr	Glu	Ile	Pro	Pro	Pro	Leu		
	610					615					620						
Ser	Pro	Pro	Arg	Gly	Leu	Val	Ala	Val	Arg	Thr	Pro	Arg	Gly	Val	Leu		
625					630					635					640		
Leu	His	Trp	Asp	Pro	Pro	Glu	Leu	Val	Pro	Lys	Arg	Leu	Asp	Gly	Tyr		
				645					650					655			
Val	Leu	Glu	Gly	Arg	Gln	Gly	Ser	Gln	Gly	Trp	Glu	Val	Leu	Asp	Pro		
			660					665					670				
Ala	Val	Ala	Gly	Thr	Glu	Thr	Glu	Leu	Leu	Val	Pro	Gly	Leu	Ile	Lys		
		675					680					685					
Asp	Val	Leu	Tyr	Glu	Phe	Arg	Leu	Val	Ala	Phe	Ala	Gly	Ser	Phe	Val		
690						695					700						

Ser Asp Pro Ser Asn Thr Ala Asn Val Ser Thr Ser Gly Leu Glu Val
705 710 715 720

Tyr Pro Ser Arg Thr Gln Leu Pro Gly Leu Leu Pro Gln Pro Val Leu
725 730 735

Ala Gly Val Val Gly Gly Val Cys Phe Leu Gly Val Ala Val Leu Val
740 745 750

Ser Ile Leu Ala Gly Cys Leu Leu Asn Arg Arg Arg Ala Ala Arg Arg
755 760 765

Arg Arg Lys Arg Leu Arg Gln Asp Pro Pro Leu Ile Phe Ser Pro Thr
770 775 780

Gly Lys Ser Ala Ala Pro Ser Ala Leu Gly Ser Gly Ser Pro Asp Ser
785 790 795 800

Val Ala Lys Leu Lys Leu Gln Gly Ser Pro Val Pro Ser Leu Arg Gln
805 810 815

Ser Leu Leu Trp Gly Asp Pro Ala Gly Thr Pro Ser Pro His Pro Asp
820 825 830

Pro Pro Ser Ser Arg Gly Pro Leu Pro Leu Glu Pro Ile Cys Arg Gly
835 840 845

Pro Asp Gly Arg Phe Val Met Gly Pro Tyr Val Ala Ala Pro Gln Glu
850 855 860

Arg Ser Gly Arg Glu Gln Ala Glu Pro Arg Thr Pro Ala Gln Arg Leu
865 870 875 880

Ala Arg Ser Phe Asp Cys Ser Ser Ser Ser Pro Ser Gly Ala Pro Gln
885 890 895

Pro Leu Cys Ile Glu Asp Ile Ser Pro Val Ala Pro Pro Pro Ala Ala
900 905 910

Pro Pro Ser Pro Leu Pro Gly Pro Gly Pro Leu Leu Gln Tyr Leu Ser
915 920 925

Leu Pro Phe Phe Arg Glu Met Asn Val Asp Gly Asp Trp Pro Pro Leu
930 935 940

Glu Glu Pro Ser Pro Ala Ala Pro Pro Asp Tyr Met Asp Thr Arg Arg
 945 950 955 960

Cys Pro Thr Ser Ser Phe Leu Arg Ser Pro Glu Thr Pro Pro Val Ser
 965 970 975

Pro Arg Glu Ser Leu Pro Gly Ala Val Val Gly Ala Gly Ala Thr Ala
 980 985 990

Glu Pro Pro Tyr Thr Ala Leu Ala Asp Trp Thr Leu Arg Glu Arg Leu
 995 1000 1005

Leu Pro Gly Leu Leu Pro Ala Ala Pro Arg Gly Ser Leu Thr Ser
 1010 1015 1020

Gln Ser Ser Gly Arg Gly Ser Ala Ser Phe Leu Arg Pro Pro Ser
 1025 1030 1035

Thr Ala Pro Ser Ala Gly Gly Ser Tyr Leu Ser Pro Ala Pro Gly
 1040 1045 1050

Asp Thr Ser Ser Trp Ala Ser Gly Pro Glu Arg Trp Pro Arg Arg
 1055 1060 1065

Glu His Val Val Thr Val Ser Lys Arg Arg Asn Thr Ser Val Asp
 1070 1075 1080

Glu Asn Tyr Glu Trp Asp Ser Glu Phe Pro Gly Asp Met Glu Leu
 1085 1090 1095

Leu Glu Thr Leu His Leu Gly Leu Ala Ser Ser Arg Leu Arg Pro
 1100 1105 1110

Glu Ala Glu Pro Glu Leu Gly Val Lys Thr Pro Glu Glu Gly Cys
 1115 1120 1125

Leu Leu Asn Thr Ala His Val Thr Gly Pro Glu Ala Arg Cys Ala
 1130 1135 1140

Ala Leu Arg Glu Glu Phe Leu Ala Phe Arg Arg Arg Arg Asp Ala
 1145 1150 1155

Thr Arg Ala Arg Leu Pro Ala Tyr Arg Gln Pro Val Pro His Pro
 1160 1165 1170

Glu Gln Ala Thr Leu Leu
1175

<210> 10
<211> 1163
<212> PRT
<213> Homo sapiens

<400> 10

Met Val Trp Cys Leu Gly Leu Ala Val Leu Ser Leu Val Ile Ser Gln
1 5 10 15

Gly Ala Asp Gly Arg Gly Lys Pro Glu Val Val Ser Val Val Gly Arg
20 25 30

Ala Glu Glu Ser Val Val Leu Gly Cys Asp Leu Leu Pro Pro Ala Gly
35 40 45

Arg Pro Pro Leu His Val Ile Glu Trp Leu Arg Phe Gly Phe Leu Leu
50 55 60

Pro Ile Phe Ile Gln Phe Gly Leu Tyr Ser Pro Arg Ile Asp Pro Asp
65 70 75 80

Tyr Val Gly Arg Val Arg Leu Gln Lys Gly Ala Ser Leu Gln Ile Glu
85 90 95

Gly Leu Arg Val Glu Asp Gln Gly Trp Tyr Glu Cys Arg Val Phe Phe
100 105 110

Leu Asp Gln His Ile Pro Glu Asp Asp Phe Ala Asn Gly Ser Trp Val
115 120 125

His Leu Thr Val Asn Ser Pro Pro Gln Phe Gln Glu Thr Pro Pro Ala
130 135 140

Val Leu Glu Val Gln Glu Leu Glu Pro Val Thr Leu Arg Cys Val Ala
145 150 155 160

Arg Gly Ser Pro Leu Pro His Val Thr Trp Lys Leu Arg Gly Lys Asp
165 170 175

Leu Gly Gln Gly Gln Gly Gln Val Gln Val Gln Asn Gly Thr Leu Arg
180 185 190

Ile Arg Arg Val Glu Arg Gly Ser Ser Gly Val Tyr Thr Cys Gln Ala
195 200 205

Ser Ser Thr Glu Gly Ser Ala Thr His Ala Thr Gln Leu Leu Val Leu
 210 215 220

 Gly Pro Pro Val Ile Val Val Pro Pro Lys Asn Ser Thr Val Asn Ala
 225 230 235 240

 Ser Gln Asp Val Ser Leu Ala Cys His Ala Glu Ala Tyr Pro Ala Asn
 245 250 255

 Leu Thr Tyr Ser Trp Phe Gln Asp Asn Ile Asn Val Phe His Ile Ser
 260 265 270

 Arg Leu Gln Pro Arg Val Gln Ile Leu Val Asp Gly Ser Leu Arg Leu
 275 280 285

 Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr Cys Val Pro Ser
 290 295 300

 Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr Leu Thr Val Leu
 305 310 315 320

 Cys Met Pro Gly Val Ile Arg Cys Pro Val Arg Ala Asn Pro Pro Leu
 325 330 335

 Leu Phe Val Ser Trp Thr Lys Asp Gly Lys Ala Leu Gln Leu Asp Lys
 340 345 350

 Phe Pro Gly Trp Ser Gln Gly Thr Glu Gly Ser Leu Ile Ile Ala Leu
 355 360 365

 Gly Asn Glu Asp Ala Leu Gly Glu Tyr Ser Cys Thr Pro Tyr Asn Ser
 370 375 380

 Leu Gly Thr Ala Gly Pro Ser Pro Val Thr Arg Val Leu Leu Lys Ala
 385 390 395 400

 Pro Pro Ala Phe Ile Glu Arg Pro Lys Glu Glu Tyr Phe Gln Glu Val
 405 410 415

 Gly Arg Glu Leu Leu Ile Pro Cys Ser Ala Gln Gly Asp Pro Pro Pro
 420 425 430

 Val Val Ser Trp Thr Lys Val Gly Arg Gly Leu Gln Gly Gln Ala Gln
 435 440 445

Val Asp Ser Asn Ser Ser Leu Ile Leu Arg Pro Leu Thr Lys Glu Ala
 450 455 460

His Gly His Trp Glu Cys Ser Ala Ser Asn Ala Val Ala Arg Val Ala
 465 470 475 480

Thr Ser Thr Asn Val Tyr Val Leu Gly Thr Ser Pro His Val Val Thr
 485 490 495

Asn Val Ser Val Val Ala Leu Pro Lys Gly Ala Asn Val Ser Trp Glu
 500 505 510

Pro Gly Phe Asp Gly Gly Tyr Leu Gln Arg Phe Ser Val Trp Tyr Thr
 515 520 525

Pro Leu Ala Lys Arg Pro Asp Arg Met His His Asp Trp Val Ser Leu
 530 535 540

Ala Val Pro Val Gly Ala Ala His Leu Leu Val Pro Gly Leu Gln Pro
 545 550 555 560

His Thr Gln Tyr Gln Phe Ser Val Leu Ala Gln Asn Lys Leu Gly Ser
 565 570 575

Gly Pro Phe Ser Glu Ile Val Leu Ser Ala Pro Glu Gly Leu Pro Thr
 580 585 590

Thr Pro Ala Ala Pro Gly Leu Pro Pro Thr Glu Ile Pro Pro Pro Leu
 595 600 605

Ser Pro Pro Arg Gly Leu Val Ala Val Arg Thr Pro Arg Gly Val Leu
 610 615 620

Leu His Trp Asp Pro Pro Glu Leu Val Pro Lys Arg Leu Asp Gly Tyr
 625 630 635 640

Val Leu Glu Gly Arg Gln Gly Ser Gln Gly Trp Glu Val Leu Asp Pro
 645 650 655

Ala Val Ala Gly Thr Glu Thr Glu Leu Leu Val Pro Gly Leu Ile Lys
 660 665 670

Asp Val Leu Tyr Glu Phe Arg Leu Val Ala Phe Ala Gly Ser Phe Val
 675 680 685

Ser Asp Pro Ser Asn Thr Ala Asn Val Ser Thr Ser Gly Leu Glu Val
 690 695 700
 Tyr Pro Ser Arg Thr Gln Leu Pro Gly Leu Leu Pro Gln Pro Val Leu
 705 710 715 720
 Ala Gly Val Val Gly Gly Val Cys Phe Leu Gly Val Ala Val Leu Val
 725 730 735
 Ser Ile Leu Ala Gly Cys Leu Leu Asn Arg Arg Arg Ala Ala Arg Arg
 740 745 750
 Arg Arg Lys Arg Leu Arg Gln Asp Pro Pro Leu Ile Phe Ser Pro Thr
 755 760 765
 Gly Lys Ser Ala Ala Pro Ser Ala Leu Gly Ser Gly Ser Pro Asp Ser
 770 775 780
 Val Ala Lys Leu Lys Leu Gln Gly Ser Pro Val Pro Ser Leu Arg Gln
 785 790 795 800
 Ser Leu Leu Trp Gly Asp Pro Ala Gly Thr Pro Ser Pro His Pro Asp
 805 810 815
 Pro Pro Ser Ser Arg Gly Pro Leu Pro Leu Glu Pro Ile Cys Arg Gly
 820 825 830
 Pro Asp Gly Arg Phe Val Met Gly Pro Tyr Val Ala Ala Pro Gln Glu
 835 840 845
 Arg Ser Gly Arg Glu Gln Ala Glu Pro Arg Thr Pro Ala Gln Arg Leu
 850 855 860
 Ala Arg Ser Phe Asp Cys Ser Ser Ser Ser Pro Ser Gly Ala Pro Gln
 865 870 875 880
 Pro Leu Cys Ile Glu Asp Ile Ser Pro Val Ala Pro Pro Pro Ala Ala
 885 890 895
 Pro Pro Ser Pro Leu Pro Gly Pro Gly Pro Leu Leu Gln Tyr Leu Ser
 900 905 910
 Leu Pro Phe Phe Arg Glu Met Asn Val Asp Gly Asp Trp Pro Pro Leu
 915 920 925
 Glu Glu Pro Ser Pro Ala Ala Pro Pro Asp Tyr Met Asp Thr Arg Arg

<210> 11
 <211> 1163
 <212> PRT
 <213> Homo sapiens

<400> 11

Met Val Trp Cys Leu Gly Leu Ala Val Leu Ser Leu Val Ile Ser Gln
 1 5 10 15

Gly Ala Asp Gly Arg Gly Lys Pro Glu Val Val Ser Val Val Gly Arg
 20 25 30

Ala Glu Glu Ser Val Val Leu Gly Cys Asp Leu Leu Pro Pro Ala Gly
 35 40 45

Arg Pro Pro Leu His Val Ile Glu Trp Leu Arg Phe Gly Phe Leu Leu
 50 55 60

Pro Ile Phe Ile Gln Phe Gly Leu Tyr Ser Pro Arg Ile Asp Pro Asp
 65 70 75 80

Tyr Val Gly Arg Val Arg Leu Gln Lys Gly Ala Ser Leu Gln Ile Glu
 85 90 95

Gly Leu Arg Val Glu Asp Gln Gly Trp Tyr Glu Cys Arg Val Phe Phe
 100 105 110

Leu Asp Gln His Ile Pro Glu Asp Asp Phe Ala Asn Gly Ser Trp Val
 115 120 125

His Leu Thr Val Asn Ser Pro Pro Gln Phe Gln Glu Thr Pro Pro Ala
 130 135 140

Val Leu Glu Val Gln Glu Leu Glu Pro Val Thr Leu Arg Cys Val Ala
 145 150 155 160

Arg Gly Ser Pro Leu Pro His Val Thr Trp Lys Leu Arg Gly Lys Asp
 165 170 175

Leu Gly Gln Gly Gln Gly Gln Val Gln Val Gln Asn Gly Thr Leu Arg
 180 185 190

Ile Arg Arg Val Glu Arg Gly Ser Ser Gly Val Tyr Thr Cys Gln Ala
 195 200 205

Ser Ser Thr Glu Gly Ser Ala Thr His Ala Thr Gln Leu Leu Val Leu
 210 215 220

 Gly Pro Pro Val Ile Val Val Pro Pro Lys Asn Ser Thr Val Asn Ala
 225 230 235 240

 Ser Gln Asp Val Ser Leu Ala Cys His Ala Glu Ala Tyr Pro Ala Asn
 245 250 255

 Leu Thr Tyr Ser Trp Phe Gln Asp Asn Ile Asn Val Phe His Ile Ser
 260 265 270

 Arg Leu Gln Pro Arg Val Arg Ile Leu Val Asp Gly Ser Leu Arg Leu
 275 280 285

 Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr Cys Val Pro Ser
 290 295 300

 Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr Leu Thr Val Leu
 305 310 315 320

 Cys Met Pro Gly Val Ile Arg Cys Pro Val Arg Ala Asn Pro Pro Leu
 325 330 335

 Leu Phe Val Ser Trp Thr Lys Asp Gly Lys Ala Leu Gln Leu Asp Lys
 340 345 350

 Phe Pro Gly Trp Ser Gln Gly Thr Glu Gly Ser Leu Ile Ile Ala Leu
 355 360 365

 Gly Asn Glu Asp Ala Leu Gly Glu Tyr Ser Cys Thr Pro Tyr Asn Ser
 370 375 380

 Leu Gly Thr Ala Gly Pro Ser Pro Val Thr Arg Val Leu Leu Lys Ala
 385 390 395 400

 Pro Pro Ala Phe Ile Glu Arg Pro Lys Glu Glu Tyr Phe Gln Glu Val
 405 410 415

 Gly Arg Glu Leu Leu Ile Pro Cys Ser Ala Gln Gly Asp Pro Pro Pro
 420 425 430

 Val Val Ser Trp Thr Lys Val Gly Arg Gly Leu Gln Gly Gln Ala Gln
 435 440 445

 Val Asp Ser Asn Ser Ser Leu Ile Leu Arg Pro Leu Thr Lys Glu Ala

450		455		460	
His Gly His Trp Glu Cys Ser Ala Ser Asn Ala Val Ala Arg Val Ala					
465		470		475	480
Thr Ser Thr Asn Val Tyr Val Leu Gly Thr Ser Pro His Val Val Thr					
	485		490		495
Asn Val Ser Val Val Ala Leu Pro Lys Gly Ala Asn Val Ser Trp Glu					
	500		505		510
Pro Gly Phe Asp Gly Gly Tyr Leu Gln Arg Phe Ser Val Trp Tyr Thr					
	515		520		525
Pro Leu Ala Lys Arg Pro Asp Arg Met His His Asp Trp Val Ser Leu					
	530		535		540
Ala Val Pro Val Gly Ala Ala His Leu Leu Val Pro Gly Leu Gln Pro					
545		550		555	560
His Thr Gln Tyr Gln Phe Ser Val Leu Ala Gln Asn Lys Leu Gly Ser					
	565		570		575
Gly Pro Phe Ser Glu Ile Val Leu Ser Ala Pro Glu Gly Leu Pro Thr					
	580		585		590
Thr Pro Ala Ala Pro Gly Leu Pro Pro Thr Glu Ile Pro Pro Pro Leu					
	595		600		605
Ser Pro Pro Arg Gly Leu Val Ala Val Arg Thr Pro Arg Gly Val Leu					
	610		615		620
Leu His Trp Asp Pro Pro Glu Leu Val Pro Lys Arg Leu Asp Gly Tyr					
625		630		635	640
Val Leu Glu Gly Arg Gln Gly Ser Gln Gly Trp Glu Val Leu Asp Pro					
	645		650		655
Ala Val Ala Gly Thr Glu Thr Glu Leu Leu Val Pro Gly Leu Ile Lys					
	660		665		670
Asp Val Leu Tyr Glu Phe Arg Leu Val Ala Phe Ala Gly Ser Phe Val					
	675		680		685
Ser Asp Pro Ser Asn Thr Ala Asn Val Ser Thr Ser Gly Leu Glu Val					
	690		695		700

Tyr Pro Ser Arg Thr Gln Leu Pro Gly Leu Leu Pro Gln Pro Val Leu
705 710 715 720

Ala Gly Val Val Gly Gly Val Cys Phe Leu Gly Val Ala Val Leu Val
725 730 735

Ser Ile Leu Ala Gly Cys Leu Leu Asn Arg Arg Arg Ala Ala Arg Arg
740 745 750

Arg Arg Lys Arg Leu Arg Gln Asp Pro Pro Leu Ile Phe Ser Pro Thr
755 760 765

Gly Lys Ser Ala Ala Pro Ser Ala Leu Gly Ser Gly Ser Pro Asp Ser
770 775 780

Val Ala Lys Leu Lys Leu Gln Gly Ser Pro Val Pro Ser Leu Arg Gln
785 790 795 800

Ser Leu Leu Trp Gly Asp Pro Ala Gly Thr Pro Ser Pro His Pro Asp
805 810 815

Pro Pro Ser Ser Arg Gly Pro Leu Pro Leu Glu Pro Ile Cys Arg Gly
820 825 830

Pro Asp Gly Arg Phe Val Met Gly Pro Tyr Val Ala Ala Pro Gln Glu
835 840 845

Arg Ser Gly Arg Glu Gln Ala Glu Pro Arg Thr Pro Ala Gln Arg Leu
850 855 860

Ala Arg Ser Phe Asp Cys Ser Ser Ser Ser Pro Ser Gly Ala Pro Gln
865 870 875 880

Pro Leu Cys Ile Glu Asp Ile Ser Pro Val Ala Pro Pro Pro Ala Ala
885 890 895

Pro Pro Ser Pro Leu Pro Gly Pro Gly Pro Leu Leu Gln Tyr Leu Ser
900 905 910

Leu Pro Phe Phe Arg Glu Met Asn Val Asp Gly Asp Trp Pro Pro Leu
915 920 925

Glu Glu Pro Ser Pro Ala Ala Pro Pro Asp Tyr Met Asp Thr Arg Arg
930 935 940

Cys Pro Thr Ser Ser Phe Leu Arg Ser Pro Glu Thr Pro Pro Val Ser
 945 950 955 960

Pro Arg Glu Ser Leu Pro Gly Ala Val Val Gly Ala Gly Ala Thr Ala
 965 970 975

Glu Pro Pro Tyr Thr Ala Leu Ala Asp Trp Thr Leu Arg Glu Arg Leu
 980 985 990

Leu Pro Gly Leu Leu Pro Ala Ala Pro Arg Gly Ser Leu Thr Ser Gln
 995 1000 1005

Ser Ser Gly Arg Gly Ser Ala Ser Phe Leu Arg Pro Pro Ser Thr
 1010 1015 1020

Ala Pro Ser Ala Gly Gly Ser Tyr Leu Ser Pro Ala Pro Gly Asp
 1025 1030 1035

Thr Ser Ser Trp Ala Ser Gly Pro Glu Arg Trp Pro Arg Arg Glu
 1040 1045 1050

His Val Val Thr Val Ser Lys Arg Arg Asn Thr Ser Val Asp Glu
 1055 1060 1065

Asn Tyr Glu Trp Asp Ser Glu Phe Pro Gly Asp Met Glu Leu Leu
 1070 1075 1080

Glu Thr Leu His Leu Gly Leu Ala Ser Ser Arg Leu Arg Pro Glu
 1085 1090 1095

Ala Glu Pro Glu Leu Gly Val Lys Thr Pro Glu Glu Gly Cys Leu
 1100 1105 1110

Leu Asn Thr Ala His Val Thr Gly Pro Glu Ala Arg Cys Ala Ala
 1115 1120 1125

Leu Arg Glu Glu Phe Leu Ala Phe Arg Arg Arg Arg Asp Ala Thr
 1130 1135 1140

Arg Ala Arg Leu Pro Ala Tyr Arg Gln Pro Val Pro His Pro Glu
 1145 1150 1155

Gln Ala Thr Leu Leu
 1160

<210> 12
 <211> 1030
 <212> DNA
 <213> Homo sapiens

<400> 12
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 acgtggaagc tccgaggaaa ggaccttggc cagggccagg gccagggtgca agtgcagaac 120
 gggacgctgc ggatccgccg ggtagagcga ggcagctctg gggctctacac ctgccaagcc 180
 tccagcactg agggcagcgc caccacagcc acccagctgc tagtgctagg acccccagtc 240
 atcgtggtgc cccccaagaa cagcacagtc aatgcctccc aggatgtttc attggcctgc 300
 catgctgagg cataccctgc taacctcacc tacagctggg tccaggacaa catcaatgtc 360
 ttccacatta gccgcctgca gcccgggtg cggatcctgg tggacgggag cctgcggctg 420
 ctggccaccc agcctgatga tgccggctgc tacacctgtg tgcccagcaa tggcctcctg 480
 catccaccct cagcctctgc ctacctcact gtgctctgta agcctgacct cagcttctcc 540
 ctcagcctgc tcccttcccc tgggcccaggc caagcccctc tcccccaact tgccactatt 600
 ttccccaga cccagcccag gtgacagcta tgccctctga gacaccctg cccataggca 660
 tgccgggggt gatccgctgc ccggttcgtg ccaaccccc actgctcttt gtcagctgga 720
 ccaaggatgg aaaggccctg cagctggaca agaagagaga tgatctctgg ggaaaatgat 780
 ggcaaagagt caagaaggag aactgaagtt tctttcgtgt gatgactggg aaattgtgtg 840
 tcccggggga atacacactt cttaccagtt ccctggctgg tcccagggca cagaaggctc 900
 actgatcatc gccctgggga acgaggatgc cctgggagaa tactcctgca cccctacaa 960
 cagtcttggg accgccgggc cctctcctgt gaccgcgtg ctgctcaagg ctccccagc 1020
 ttttatagag 1030

<210> 13
 <211> 939
 <212> DNA
 <213> Homo sapiens

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 acgtggaagc tccgaggaaa ggaccttggc cagggccagg gccagggtgca agtgcagaac 120
 gggacgctgc ggatccgccg ggtagagcga ggcagctctg gggctctacac ctgccaagcc 180
 tccagcactg agggcagcgc caccacagcc acccagctgc tagtgctagg acccccagtc 240
 atcgtggtgc cccccaagaa cagcacagtc aatgcctccc aggatgtttc attggcctgc 300
 catgctgagg cataccctgc taacctcacc tacagctggg tccaggacaa catcaatgtc 360

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ttccacatta gccgcctgca gccccgggtg cggatcctgg tggacgggag cctgcggctg      420
ctggccaccc agcctgatga tgccggctgc tacacctgtg tgcccagcaa tggcctcctg      480
catccaccct cagcctctgc ctacctcact gtgctctacc cagcccaggt gacagctatg      540
cctcctgaga caccctgcc cataggcatg ccgggggtga tccgctgccc ggttcgtgcc      600
aacccccac tgctctttgt cagctggacc aaggatggaa aggccctgca gctggacaag      660
aagagagatg atctccgggg aaaatgatgg caaagagtca agaaggagaa ctgaagtttc      720
tttcgtgtga tgactgggaa attgtgtgtc ccgggggaac acacacttct taccagttcc      780
ctggctggtc ccagggcaca gaaggctcac tgatcatcgc cctggggaac gaggatgccc      840
tgggagaata ctctgcacc cccctacaac agtcttggtg ccgccgggcc ctctcctgtg      900
accgcgctgc tgctcaaggc tccccagct tttatagag                                939

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<210> 14
<211> 832
<212> DNA
<213> Homo sapiens

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<400> 14
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acgtggaagc tccgaggaaa ggaccttggc cagggccagg gccaggtgca agtgcagaac      120
gggacgctgc ggatccgccg ggtagagcga ggcagctctg gggctctacac ctgccaagcc      180
tccagcactg agggcagcgc caccacgcc acccagctgc tagtgctagg acccccagtc      240
atcgtggtgc ccccaagaa cagcacagtc aatgcctccc aggatgtttc attggcctgc      300
catgctgagg cataccctgc taacctcacc tacagctggt tccaggacaa catcaatgtc      360
ttccacatta gccgcctgca gccccgggtg cggatcctgg tggacgggag cctgcggctg      420
ctggccaccc agcctgatga tgccggctgc tacacctgtg tgcccagcaa tggcctcctg      480
catccaccct cagcctctgc ctacctcact gtgctctctg gaccaaggat ggaaaggccc      540
tgcagctgga caagaagaga gatgatctct ggggaaaatg atggcaaaga gtcaagaagg      600
agaactgaag tttctttcgt gtgatgactg ggaaattgtg tgtcccgggg gaacacacac      660
ttcttaccag ttccctggct ggtcccaggg cacagaaggc tctatgatca tcgccctggg      720
gaacgaggat gccctgggag aatactcctg caccctctac aacagtcttg gtaccgccgg      780
gccctctcct gtgaccgcg tgctgctcaa ggctcccca gcttttatag ag                                832

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<210> 15
<211> 822
<212> DNA
<213> Homo sapiens

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<400> 15
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gggacgctgc ggatccgccc ggtagagcga ggcagctctg gggctctacac ctgccaaagcc 180
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cctcctgaga caccctgcc cataggcatg ccgggggtga tccgctgccc ggttcgtgcc 600
aacccccac tgctctttgt cagctggacc aaggatggaa aggccctgca gctggacaag 660
ttccctggct ggtcccaggg cacagaaggc tcaactgatca tcgccctggg gaacgaggat 720
gccctgggag aataactcctg caccctctac aacagtcttg gtaccgcccg gccctctcct 780
gtgaccgcgc tgctgctcaa ggctcccca gcttttatag ag 822

<210> 16
<211> 222
<212> DNA
<213> Homo sapiens

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ctttgtcagc tggaccaagg atggaaaggc cctgcagctg gacaagttcc ctggctggct 180
gggtcccaggg cacagaaggc tcaactgatca tcgccctggg ga 222

<210> 17
<211> 222
<212> DNA
<213> Homo sapiens

<400> 17
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ctttgtcagc tggaccaagg atggaaaggc cctgcagctg gacaagttcc ctggctggct 180
gggtcccaggg cacagaaggc tcaactgatca tcgccctggg ga 222

<210> 18

<211> 226
 <212> DNA
 <213> Homo sapiens

<400> 18
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 tcgtgtgatg actgggaaat tgtgtgtccc gggggaacac acacttctta ccagttccct 180
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<210> 19
 <211> 426
 <212> DNA
 <213> Homo sapiens

<400> 19
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<210> 20
 <211> 336
 <212> DNA
 <213> Homo sapiens

<400> 20
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<210> 21
 <211> 332
 <212> DNA
 <213> Homo sapiens

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<400> 21
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cacagaaggc tctactgatca tcgccctggg ga 332

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<210> 22
<211> 141
<212> PRT
<213> Homo sapiens

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<400> 22
Ser Leu Arg Leu Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr
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Cys Pro Ser Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr Leu
          20          25          30
Thr Val Leu Tyr Pro Ala Gln Val Thr Ala Met Pro Pro Glu Thr Pro
          35          40          45
Leu Pro Ile Gly Met Pro Gly Val Ile Arg Cys Pro Val Arg Ala Asn
          50          55          60
Pro Pro Leu Leu Phe Val Ser Trp Thr Lys Asp Gly Lys Ala Leu Gln
65          70          75          80
Leu Asp Lys Phe Pro Gly Trp Ser Gln Gly Thr Glu Gly Ser Leu Ile
          85          90          95
Ile Ala Leu Gly Asn Glu Asp Ala Leu Gly Glu Tyr Ser Cys Thr Pro
          100          105          110
Tyr Asn Ser Leu Gly Thr Ala Gly Pro Ser Pro Val Thr Arg Val Leu
          115          120          125
Leu Lys Ala Pro Pro Ala Phe Ile Glu Arg Pro Lys Glu
          130          135          140

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<210> 23
<211> 142
<212> PRT
<213> Homo sapiens

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<400> 23

Ser Leu Arg Leu Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr
 1 5 10 15

Cys Val Pro Ser Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr
 20 25 30

Leu Thr Val Leu Tyr Pro Ala Gln Val Thr Ala Met Pro Pro Glu Thr
 35 40 45

Pro Leu Pro Ile Gly Met Pro Gly Val Ile Arg Cys Pro Val Arg Ala
 50 55 60

Asn Pro Pro Leu Leu Phe Val Ser Trp Thr Lys Asp Gly Lys Ala Leu
 65 70 75 80

Gln Leu Asp Lys Phe Pro Gly Trp Ser Gln Gly Thr Glu Gly Ser Leu
 85 90 95

Ile Ile Ala Leu Gly Asn Glu Asp Ala Leu Gly Glu Tyr Ser Cys Thr
 100 105 110

Pro Tyr Asn Ser Leu Gly Thr Ala Gly Pro Ser Pro Val Thr Arg Val
 115 120 125

Leu Leu Lys Ala Pro Pro Ala Phe Ile Glu Arg Pro Lys Glu
 130 135 140

<210> 24

<211> 71

<212> PRT

<213> Homo sapiens

<400> 24

Ser Leu Arg Leu Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr
 1 5 10 15

Cys Val Pro Ser Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr
 20 25 30

Leu Thr Val Leu Ser Gly Pro Arg Met Glu Arg Pro Cys Ser Trp Thr
 35 40 45

Arg Arg Glu Met Ile Ser Gly Glu Asn Asp Gly Lys Glu Ser Arg Arg
 50 55 60

Arg Thr Glu Val Ser Phe Val
65 70

<210> 25
<211> 71
<212> PRT
<213> Homo sapiens

<400> 25

Ser Leu Arg Leu Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr
1 5 10 15

Cys Val Pro Ser Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr
20 25 30

Leu Thr Val Leu Cys Lys Pro Asp Leu Ser Phe Ser Leu Ser Leu Leu
35 40 45

Pro Ser Pro Gly Pro Gly Gln Ala Pro Leu Pro Gln Leu Ala Thr Ile
50 55 60

Phe Pro Gln Thr Gln Pro Arg
65 70

<210> 26
<211> 100
<212> PRT
<213> Homo sapiens

<400> 26

Ser Leu Arg Leu Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr
1 5 10 15

Cys Val Pro Ser Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr
20 25 30

Leu Thr Val Leu Tyr Pro Ala Gln Val Thr Ala Met Pro Pro Glu Thr
35 40 45

Pro Leu Pro Ile Gly Met Pro Gly Val Ile Arg Cys Pro Val Arg Ala
50 55 60

Asn Pro Pro Leu Leu Phe Val Ser Trp Thr Lys Asp Gly Lys Ala Leu
65 70 75 80

Gln Leu Asp Lys Lys Arg Asp Asp Leu Arg Gly Lys Trp Gln Arg Val
85 90 95

Lys Lys Glu Asn
100

<210> 27
<211> 86
<212> PRT
<213> Homo sapiens

<400> 27

Ser Leu Arg Leu Leu Ala Thr Gln Pro Asp Asp Ala Gly Cys Tyr Thr
1 5 10 15

Cys Val Pro Ser Asn Gly Leu Leu His Pro Pro Ser Ala Ser Ala Tyr
20 25 30

Leu Thr Val Leu Tyr Pro Ala Gln Val Thr Ala Met Pro Pro Glu Thr
35 40 45

Pro Leu Pro Ile Gly Met Pro Gly Val Ile Arg Cys Pro Val Arg Ala
50 55 60

Asn Pro Pro Leu Leu Phe Val Ser Trp Thr Lys Asp Gly Lys Ala Leu
65 70 75 80

Gln Leu Asp Lys Gly Ile
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<210> 28
<211> 2250
<212> DNA
<213> Homo sapiens

<400> 28

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gaatctggca ttaatgttga cttggcaatt tccacacggc aatatcatct acaacagctt	180
ttctaccgct atggagaaaa taattctttg tcagttgaag ggttcagaaa attacttcaa	240
aatataggca tagataagat taaaagaatc catatacacc atgaccacga ccatcactca	300
gaccacgagc atcactcaga ccatgagcgt cactcagacc atgagcatca ctcagaccac	360
gagcatcact ctgaccataa tcatgctgct tctggtaaaa ataagcgaaa agctctttgc	420
ccagaccatg actcagatag ttcaggtaaa gatcctagaa acagccaggg gaaaggagct	480
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acatcaaaga	gccgggtgag	ccggctggct	ggtaggaaaa	caaatgaatc	tgtgagttag	720
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<210> 29

<211> 749

<212> PRT

<213> Homo sapiens

<400> 29

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Val Thr Asn Pro Leu His Glu Leu Lys Ala Ala Ala Phe Pro Gln Thr
 20 25 30

Thr Glu Lys Ile Ser Pro Asn Trp Glu Ser Gly Ile Asn Val Asp Leu
 35 40 45

Ala Ile Ser Thr Arg Gln Tyr His Leu Gln Gln Leu Phe Tyr Arg Tyr
 50 55 60

Gly Glu Asn Asn Ser Leu Ser Val Glu Gly Phe Arg Lys Leu Leu Gln
 65 70 75 80

Asn Ile Gly Ile Asp Lys Ile Lys Arg Ile His Ile His His Asp His
 85 90 95

Asp His His Ser Asp His Glu His His Ser Asp His Glu Arg His Ser
 100 105 110

Asp His Glu His His Ser Asp His Glu His His Ser Asp His Asn His
 115 120 125

Ala Ala Ser Gly Lys Asn Lys Arg Lys Ala Leu Cys Pro Asp His Asp
 130 135 140

Ser Asp Ser Ser Gly Lys Asp Pro Arg Asn Ser Gln Gly Lys Gly Ala
 145 150 155 160

His Arg Pro Glu His Ala Ser Gly Arg Arg Asn Val Lys Asp Ser Val
 165 170 175

Ser Ala Ser Glu Val Thr Ser Thr Val Tyr Asn Thr Val Ser Glu Gly
 180 185 190

Thr His Phe Leu Glu Thr Ile Glu Thr Pro Arg Pro Gly Lys Leu Phe
 195 200 205

Pro Lys Asp Val Ser Ser Ser Thr Pro Pro Ser Val Thr Ser Lys Ser
 210 215 220

Arg Val Ser Arg Leu Ala Gly Arg Lys Thr Asn Glu Ser Val Ser Glu
225 230 235 240

Pro Arg Lys Gly Phe Met Tyr Ser Arg Asn Thr Asn Glu Asn Pro Gln
245 250 255

Glu Cys Phe Asn Ala Ser Lys Leu Leu Thr Ser His Gly Met Gly Ile
260 265 270

Gln Val Pro Leu Asn Ala Thr Glu Phe Asn Tyr Leu Cys Pro Ala Ile
275 280 285

Ile Asn Gln Ile Asp Ala Arg Ser Cys Leu Ile His Thr Ser Glu Lys
290 295 300

Lys Ala Glu Ile Pro Pro Lys Thr Tyr Ser Leu Gln Ile Ala Trp Val
305 310 315 320

Gly Gly Phe Ile Ala Ile Ser Ile Ile Ser Phe Leu Ser Leu Leu Gly
325 330 335

Val Ile Leu Val Pro Leu Met Asn Arg Val Phe Phe Lys Phe Leu Leu
340 345 350

Ser Phe Leu Val Ala Leu Ala Val Gly Thr Leu Ser Gly Asp Ala Phe
355 360 365

Leu His Leu Leu Pro His Ser His Ala Ser His His His Ser His Ser
370 375 380

His Glu Glu Pro Ala Met Glu Met Lys Arg Gly Pro Leu Phe Ser His
385 390 395 400

Leu Ser Ser Gln Asn Ile Glu Glu Ser Ala Tyr Phe Asp Ser Thr Trp
405 410 415

Lys Gly Leu Thr Ala Leu Gly Gly Leu Tyr Phe Met Phe Leu Val Glu
420 425 430

His Val Leu Thr Leu Ile Lys Gln Phe Lys Asp Lys Lys Lys Lys Asn
435 440 445

Gln Lys Lys Pro Glu Asn Asp Asp Asp Val Glu Ile Lys Lys Gln Leu
450 455 460

Ser Lys Tyr Glu Ser Gln Leu Ser Thr Asn Glu Glu Lys Val Asp Thr

465		470		475		480
Asp Asp Arg Thr	Glu Gly Tyr Leu Arg	Ala Asp Ser Gln Glu Pro Ser				
	485	490			495	
His Phe Asp Ser	Gln Gln Pro Ala Val Leu Glu Glu Glu Glu Val Met					
	500	505			510	
Ile Ala His Ala His	Pro Gln Glu Val Tyr Asn Glu Tyr Val Pro Arg					
	515	520			525	
Gly Cys Lys Asn Lys Cys	His Ser His Phe His Asp Thr Leu Gly Gln					
	530	535			540	
Ser Asp Asp Leu Ile	His His His His Asp Tyr His His Ile Leu His					
	545	550			555	560
His His His His	Gln Asn His His Pro His Ser His Ser Gln Arg Tyr					
	565	570				575
Ser Arg Glu Glu Leu Lys Asp Ala Gly Val Ala Thr Leu Ala Trp Met						
	580	585			590	
Val Ile Met Gly Asp Gly Leu His Asn Phe Ser Asp Gly Leu Ala Ile						
	595	600			605	
Gly Ala Ala Phe Thr Glu Gly Leu Ser Ser Gly Leu Ser Thr Ser Val						
	610	615			620	
Ala Val Phe Cys His Glu Leu Pro His Glu Leu Gly Asp Phe Ala Val						
	625	630			635	640
Leu Leu Lys Ala Gly Met Thr Val Lys Gln Ala Val Leu Tyr Asn Ala						
	645	650			655	
Leu Ser Ala Met Leu Ala Tyr Leu Gly Met Ala Thr Gly Ile Phe Ile						
	660	665			670	
Gly His Tyr Ala Glu Asn Val Ser Met Trp Ile Phe Ala Leu Thr Ala						
	675	680			685	
Gly Leu Phe Met Tyr Val Ala Leu Val Asp Met Val Pro Glu Met Leu						
	690	695			700	
His Asn Asp Ala Ser Asp His Gly Cys Ser Arg Trp Gly Tyr Phe Phe						
	705	710			715	720

Leu Gln Asn Ala Gly Met Leu Leu Gly Phe Gly Ile Met Leu Leu Ile
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Ser Ile Phe Glu His Lys Ile Val Phe Arg Ile Asn Phe
 740 745

<210> 30
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer used to amplify IGSF9

<400> 30
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<210> 31
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer used to amplify IGSF9

<400> 31
 gccacagggc tgatgtcttc aatgc 25

<210> 32
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer used for amplification of the GAPDH gene

<400> 32
 accacagtcc atgccatcac 20

<210> 33
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer used for amplification of the GAPDH gene

<400> 33
 tccaccaccc tggtgctgta 20

<210> 34
 <211> 25
 <212> DNA

<213> Artificial Sequence

<220>

<223> Primer used to show the expression of IGSF9 in human tumor cells

<400> 34

tcttatcttc tctccgaccg ggaag 25

<210> 35

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer used to show the expression of IGSF9 in human tumor cells

<400> 35

gccacagggc tgatgtcttc aatgc 25

<210> 36

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer used for amplification of the GAPDH gene

<400> 36

accacagtcc atgccatcac 20

<210> 37

<211> 20

<212> DNA

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<223> Primer used for amplification of the GAPDH gene

<400> 37

tccaccaccc tggtgctgta 20

<210> 38

<211> 24

<212> DNA

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<220>

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<400> 38

gtgggccggg ggctgcaagg ccag 24

<210> 39

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
 <223> Primer used to amplify IGSF9

 <400> 39
 agcagacaag acgatttcgc tgaa 24

 <210> 40
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 <220>
 <223> Primer used to flank the region of IGSF9

 <400> 40
 caggaactgg agcctgtgac cct 23

 <210> 41
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer used to flank the region of IGSF9

 <400> 41
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 <210> 42
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer used to amplify LIV-1

 <400> 42
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 <210> 43
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer used to amplify LIV-1

 <400> 43
 ggtcactagc atcattgtgc agc 23